

SINGLE LAYER CAPACITOR

Abstract of the Disclosure

A monolithic or essentially monolithic single layer capacitor with high structural strength and capacitance that may be easily and inexpensively manufactured. To this end, sheets of green-state ceramic dielectric material and ceramic/metal composite material are laminated together, diced into individual chips, and fired to sinter the ceramic together. The composite material may comprise an amount of metal sufficient to render the composite conductive whereby the composite may be used for one or both electrodes and for mounting the capacitor to the pc board. Alternatively, the composite material may comprise an amount of metal insufficient to render the composite conductive but sufficient to act as seed points for an electroplating process wherein the composite is preferentially coated with conductive metal, and the coated composite is mounted to the pc board and the coating provides an electrical connection to an internal electrode. By the present invention, vertically-oriented surface mountable capacitors and hybrid capacitors are provided.